DEVOTED TO NAVIGATION, COMMERCE, ENGINEERING AND SCIENCE.

VOL. XI. NO. 14. CLEVELAND, O., APRIL 4, 1889. $2.00 PER ANNUM SINGLE COPIES 5 CENTS

AROUND THE LAKES.

CLEVELAND, OHIO.

James McKinly will sail this season, as steward on the steambarge Havanna.

The new boat building at Gibraltar as consort to the steambarge George Spencer will be named the B. C. Pennington.

Captain Cunningham, of Detroit, left here Monday night for home. He will fit out the New Orleans ready for the opening of navigation.

Captain Millen, of the firm of Parker & Millen, Detroit, arrived in the city yesterday, presumably on business connected with his vessel property.

The Grummond line steamer Atlantic, Capt. Jones, will leave here on Friday night for Mackinac, and way ports, on the first regular trip of the season.

The schooners Young America and Montgomery, have arrived at this port from Detroit, with a total of 38,000 bushels grain for the Cleveland milling company, and the schooner St. Peter, from Toledo with 23,000 bushels wheat.

Captain George A. Simpson, compass adjuster, has arrived here from Boston, Mass., to attend to the season's business. After stopping over here a day Captain Simpson left for Chicago, where he will at once begin adjusting and correcting compasses.

From the bureau of navigation, Washington, D. C., we learn that the propeller William B. Morley, official number 81,191, tonnage 1,469.81, built in Marine City, Mich., in 1888, has had her name changed to the Caledonia, and now hails from Cleveland, Ohio.

Messrs. Mead and Thomson have secured a patent on their hot water car heater, for railroad cars, and they are doing a large business with their patent flue cleaner. They have appointed agents for the patent in the east and at Puget sound, Washington territory.

We take pleasure in recommending the Mount Olive Erasive Liquid, manufactured by Captain D. A. McLachlin, for cleaning varnish and painted articles, without injury to the polish. Price 40c per gallon. Address the Captain at No. 633 Trumbull avenue, Detroit, Mich.

Rev. J. D. Jones, of the floating bethel, makes a report of work for the past quarter in which he says that the services numbered 74. The attendance numbered 3,770 and 757 arose for prayer. Twenty-four tons of coal, groceries, shoes and over 750 free meals were furnished in case of extreme need.

Captain E. Cunningham, who has been shipmate with the Providence ship windlass, speaks in great praise of this excellent machine, and considers there is no windlass manufactured to equal the Providence ship windlass as turned out and fitted by the American ship windlass company, Providence, R. I.

Mr. J. D. Williamson, jr., Philadelphia, Pa., a member of the firm of Williamson Brothers, steam steering manufactory, was in the city last Tuesday visiting the shipyards and builders. Mr. Williamson left for Detroit yesterday, where he will receive orders for their patent steam steerer, and attend to orders already received by his firm.

Captain A. J. Greenley has been appointed master of the R. P. Rarney. By the way, we ask the attention of readers to the able brief of H. D. Goulder Esq., who conducted the collision case, Chamberlain vs. Pridgeon, which we print this week,(continued from last week's issue,) as Captain Greenley was at that time in command of the Chamberlain. Hereafter we will publish the opinion of Judge Blodgett, before whom the case came.

Meteorological summary for the week ending April 3, 1889:

Mean barometer	29.96
Mean temperature	36 5
Mean humidity	73.0
Total precipitation	2.08
Prevailing direction of wind	N. W.
Total wind movement, miles	1333
Average cloudiness	.7
Average state of weather	Cl'dy
Max. temperature, (highest)	55.9
Min. temperature, (lowest)	22.0

W. H. HARMON, Sergeant Signal Corps.

The Inland Lloyds Vessel Register for 1889 came out yesterday. It is printed by Matthews, Northrup & Co., and is an unusually good looking volume. The general arrangement of the matter is the same as last year. The chief point of interest in the Lloyds is the immense increase of tonnage as compared with the volume published a year ago.

It is said that the new boat recently launched at Detroit for the Egan, Fitzgerald and Armour syndicate will outcarry any wooden bottom on the lakes It will remain an open question however until we have figures to quote from, in the meantime we can say that if she rivals the Caledonia owned here by Captain Corrigan she will be a daisy.

Mr. J T. Mathews, vessel owner, Toronto, was in the city Monday last, taking in the situation of the freight market Mr. Mathews had come through from Detroit, and left here for Buffalo, N. Y., where he expects to spend a few days. The Mathews' line consists of the steambarges Niagara, Captain J. Morgan, Bruno, Captain H. Maitland; schooners, Laura, Captain H. Malcolmson, Emerald, Captain J. Colahan, M. McRae, Captain T. Lyon.

Mr. John Beverly, compass adjuster, and his accomplished daughter Daisy, have just returned to the city from their sojourn in the east during the winter. Miss Daisy has won high eulogiums from many of the New York and Boston papers; also from New Brunswick dailies, for her cultivated and natural manner of rendering Shakespeare and other noted writers. Miss Daisy, with her tragic tact, holds an audience spell bound during her recitations, as the following paragraph from the New Brunswick Capital says: "It was not a mere reading. The various characters were acted out with consummate naturalness, which proved that Miss Beverly posesses histrionic talent to a high degree, and that she has been studiously cultivated in the art, under the tuition of a thoroughly capable master of elocution. Beside this, Miss Beverly's personal appearance, voice, manner,etc.,were mostdecidedly in her favor. If Daisy should adopt the stage as a profession we do not hesitate to say that unbounded success is in store for her. On April 11th, Daisy will give an entertainment at Rhode's hall, corner Pearl and Franklin streets, consisting of recitations from Shakespeare's balcony scene in Romeo and Juliete, apothecary scene, the letter and dagger scene from McBeth, the curse scene from Leah, the forsaken, and the basket scene from Ingomar.

DULUTH, MINN.

Williams, Upham & Co, have received a contact to dredge the slip for the Eastern Minnesota's huge coal dock at West Superior. Next Monday dredge No. 2 will begin the work, the tug Eliza Williams acting as attendant.

The Tangent, will probably be the name of the handsome little steam launch now building forMajor Quinn in Chicago. She will be here by May 1. Her length over all will be 33 feet, her beam 7 feet, and her maximum speed eleven miles per hour.

James Hanneth will sail the tug Record this season.

The light house once more sends its rays over the lake.

Captain Harris, who commanded the tug J. L. Williams last year, has gone to Port Arthur to bring back the tug Cheney for Captain B. B. Inman.

One week ago Captain Flynn went to Ashland to fit out the steamer Barker. He did not leave Ashland for Duluth until April 6, and was a good part of a week in getting here. This is in marked contrast with the state of navigation this year.

MANITOWOC, WIS.

The Goodrich line steamer Menominee arrived at this port last Thursday morning. It was the first arrival of the season outside of the regular Milwaukee line steamer. She cleared for Chicago same evening.

Schooners James H. Hall and Isolda Bock sailed last Thursday for Manistee and Glencuyler. These are the first schooners out of the port this season.

DETROIT, MICH.

Special to the Marine Record.

J. C. Goss, sailmaker, has just shipped a suit of sails to Bay City, Mich., also a number of bunting flags for the new vessels building at the various ports. He has completed the outfit for the new steamer, P. D. Armour, launched last Saturday from the yard of the Detroit dry dock company, and is working on the outfit of No. 94; he has also secured the contract to fit out the boat numbered by her builders, the Detroit dry dock company, as 95, and is filling orders for outfits to be shipped to St. Clair and Marine City, Mich.

The Frontier Iron and Brass works is full of work overhauling and repairing the machinery on the Gettysburg, Crusader, Birkhead, M. Sicken, S. T. Macey and W. R. Stafford; they have also taken an order from F. W. Wheeler, of West Bay City, for a triple expansion engine, dimensions, 20, 32 and 54 by 42-inch stroke.

The Detroit boat works have furnished the Thos. W. Palmer with an outfit of boats and are kept busy at work on recent orders.

The Dry dock sheet metal works have moved into their new offices, built in the addition to their former works. The office department is large and commodious, elegantly finished and grained, and fitted with all modern requirements to facilitate the handling of an extensive business.

The Clark patent metallic life raft, manufactured solely by this firm, is meeting with well deserved recognition at the hands of vessel men interested in both the passenger and freight boats. The Goodrich transportation company's steamers have recently been supplied with an outfit of these rafts, also the new City of Detroit, of the Detroit and Cleveland Steam Navigation company's fleet. The patent flue cleaner, also manufactured by this firm is said by competent authority to be the best appliance for the purpose in the world. The Buckeye Iron and Brass works, Dayton, O, say their engineers are very much pleased with it, and they would take great pleasure in recommending it to the trade, and will bring its merits before the members of the next engineer's meeting.

Thomas McGregor, Central boiler works, is busy filling recent contracts, his work being limited to the extent of his plant, with a brisk outlook for the summer months.

The Eagle Iron works are building a marine boiler for Silas B. Fox, Port Clinton, Ohio; dimensions 10 feet diameter by 14 feet long, constructing two upright boilers, two hoisting engines and deck pumps for the Detroit drydock company; also making a new upright boiler, set of pumps and hoisting engine to the order of Lockwood & Taylor hardware company, Cleveland, for the new barge building at Gibraltar, for Pennington and others.

Captain Saunders, master of the H. H. Brown, Captain Cunningham, of the propeller New Orleans, and Captain Hergenrother, who will take command of the new steamer building for Pennington and others, at Gibraltar, Mich , arrived here from Cleveland on Tuesday.

Mr. Boylan, of the coal firm of Arthur & Boylan, Cleveland, spent a few days in the city this week on business for the firm.

Capt. Pringle and his wife passed through the city on Tuesday on their way to Port Huron; their trip will probably extend over several days.

Samuel F. Hodge & Co., Riverside Iron works, are kept busy on marine work. They are constantly receiving letters speaking in the highest terms of their propeller wheels both for speed and towing qualities.

The Merchants forwarding company have been appointed the Cleveland agents for the Grummond line steamers.

The boilers for the Thomas W. Palmer of the Percheron steam navigation company will be tested next week. She will be ready for business at the opening of navigation.

The master and officers of the Grummond line steamer Atlantic were presented with a handsome floral wreath by an admiring friend, in honor of the pioneer trip of the season of navigation of 1889.

The schooner Young America left here Monday afternoon with 16,000 bushels of grain for Cleveland. Schooner Montgomery sailed Tuesday with 22,000 bushels of grain, both consigned to the Cleveland milling company.

Captain Miller left Detroit Tuesday night to take in the tone of the freight market in Cleveland.

C. D. Waterman, Grosse Isle, Mich., bought from Bay City parties the lake barge Mabel Wilson; consideration $70,000. The Mabel Wilson's registered tonnage is 1,185, burthen 1,224 tons. She was built by F. W. Wheeler, of Bay City, Mich., in 1886, and is valued in Inland Lloyds at $55,000, class A1*.

The Philip D. Armour, launched last Saturday from the yard of the Detroit drydock company, is the largest composite built vessel ever measured on the chain of lakes. She does credit to her financially ponderous owners, Messrs. Fitzgerald, Eagan & Armour.

The new schooner Benjamin Harrison, owned by the Tonawanda barge line, of Tonawanda, N. Y., is 538.03 tons burthen.

More annual vessel licenses have been issued from the custom house, up to date, than in any previous season.

Lake Michigan and Lake Huron life-saving stations have gone into commission for the season of 1889. The crews at Frankfort and Point Betsey took their stations, hurried somewhat by the arrival of craft and the presence of a raging snow storm.

The steamer Atlantic left here Sunday morning with a cargo of miscellaneous freight for Lake Huron ports, being as usual the first boat of the season to tackle the up river ice. As it was a pretty big job, in which the Atlantic was liable to be hung up, Captain Grummond sent one of his powerful wrecking tugs along, the Swain, to help break the ice. The first word received from them came Tuesday morning by telephone from Algonac. Both were still below the head of Herson's island bucking away for all they were worth. They were through the worst of it however, and expected in a short time to get in to clear water. They found the ice in an almost solid gorge from the head of the canal through southeast bend.

Captain Grummond will send out the Flora Tuesday, and the Detroit and Cleveland transportation company will start the City of Alpena Wednesday morning, the unfavorable reports having prevented her from leaving as announced.

Harvey C. Beeson, marine clerk of the port of Detroit, has just issued a complete directory of the northwestern lake ports relative to customs service and a synopsis of marine laws. The work is a concise compendium of needed information, by navigators of the lakes.

The Grummond line steamers are officered as follows: Atlantic, Capt. J. R Jones; mate, Jonn Kinyon; engineer, George L. Simmons; clerk, R. Van Slyke; steward, Edward Hill.

Flora, Captain, Thomas Melkelhan; mate, Matthew Russel; engineer, William Campbell; clerk, James King; steward, William Thorpe. The Flora will leave for Mackinac and way ports on Tuesday evening next.

Leviathian, Captrin Swain.

The passenger steamer Remora, Captain Harryman, formerly of the Alaska, has commenced making regular trips between here and Sandusky, O.

At the yard of John Oades & Son, the new boat is all in frame and the bilge keelsons are being fitted, the schooner Stewart is being calked, M. F. Merrick general repairs, Typo and John Demass fleet general overhauling, propeller Birkhead new main deck beams and boiler deck. Two large derricks are being made for a Lake Superior firm, the schooner H. W. Sage is to be re-sparred and square rigged forward, propeller New Orleans for repairs, schooner Ishpeming and John Burt, for general repairs, Josephine recalking, Julia Miner, just off the dock after undergoing a thorough calking, steambarge Allegheny part new main deck beams, new boiler deck calking and other repairs, steambarge Annie Smith had new cabins and other repairs. The yacht Truant has had new spars, and looks very handsome and trim; steam yacht Lily, new fender strake and overhauling.

The East end boiler works are making a boiler for donkey engine to the order of Captain Millen, and doing a fair share of the general repair work.

Work at the Detroit dry dock company's yards is brisk. The propeller Raleigh came out of dock on Tuesday, after having had her bottom thoroughly overhauled, scraped and calked, and an entire new flooring. The new boat building for Captain M. W. Humphrey, is getting well along, being all in frame, ceiled and lined. The origanal dimensions of this boat which we printed some time ago, have been altered, and she will now measure 196 feet on the keel, beam 37 feet 2 inches, molded depth 15 feet 3 inches. Captain Humphrey is exercising a careful supervision over the work, and the reputation of her builders warrants us in saying that when she is turned out of their hands he will have a steamer second to none in point of material, workmanship, and carrying capacity. It is expected that Captain Humphrey will take charge of the boat himself, at least for the first season. A large number of skilled workmen are at work on the boat number 94, building for Eddy Bros' Bay City. She is already half planked. The keel is laid for one of the new boats for the Central Vermont railroad company. Elaborate fittings are being placed in the saloon of the new City of Detroit, solid carved mahogany, and stained cherry wood, and panels of artistic embossed leather meets the eye at every turn. The elegance of her appointments will place her without a rival in the passenger service on the chain of lakes, and she will be a valuable acquisition on the route between Detroit and Cleveland when completed.

Mr J. S. Newbery's steam yacht arrived here Tuesday, from the Herreshoff manufacturing company, Bristol, R. I. She is named the Dawn, and her dimensions are 48 feet over all, 7 feet 6 inches beam, and her draft of water will be 2 feet 6 inches. Triple expansion engine 4½ inches 6 inches and 10 inches, by 8 inch stroke. Her square coil upright boiler measures 42 inches, and she has a condensing pipe 16 feet in length running along outside her bottom on the port side. The hull seems almost too elegant a piece of workmanship to strike into the water, although we lean to the belief that nothing can be too dainty to rest on the bosom of "the element." Her outside planking is highly polished mahogany and as smooth as silk; her keel is of oak,and she is sheathed to water line with bronzed copper paint. Her interior fittings are of cherry wood and brass finishings. At her test in Narrangansett Bay last Saturday week, she showed an average of 19 52-100 miles per hour. Her guaranteed speed according to contract, being 18 miles per hour. She carried 250 pounds of steam on her trial trip. We understand her cost to have been $9000, yet her exquisite lines, and the superb skill displayed in the entire piece of workmanship would seem to argue a moderate cost at double that sum; in a word, she is a perfect beauty, and we have not the slightest hesitation in saying that she will prove as good as she looks, and her builders world wide reputation, would bear us out in the assertion.

The barge Ben Harrison has been chartered for wheat to Buffalo at two cents, and other charters will soon be made.

The schooner Seaman, formerly of Ashtabula, Ohio, and recently purchased by people of Sheboygan, Wis., was rebuilt and measured at Port Huron, Mich., in 1883. She was then given a tonnage of 232 tons under orders from the department. We understand that she has been re-measured and her correct tonnage ascertained, with the result that she will in the future register 172.90. SWAIN.

ST. IGNACE, MICH.

Ice in the Straits is nearly broken up, it only needs a stiff west wind to break it up and drive it all out. Vessels from Lake Huron will have no trouble reaching this point.

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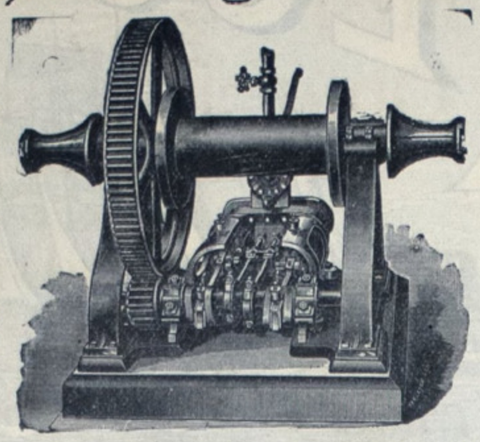

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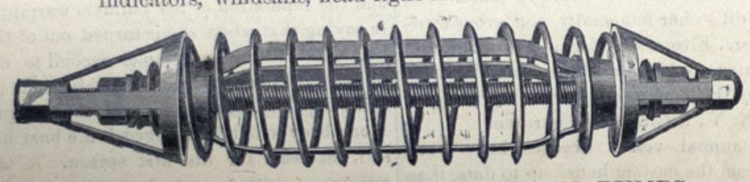

AGENTS FOR WORTHINGTON STEAM PUMPS.

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MARITIME LAW.

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF ILLINOIS.

M. A. BRADLEY, *et al.* vs. PROPELLOR PRIDGEON. } In Admiralty.

ARGUMENT BY H. D. GOULDER, PROCTOR.

[CONTINUED FROM LAST WEEK.]

or S. half W., we must have then swung enough to be crossing her course at nearly a right angle, that is, our heading must have been about east or E. by S. when the blow was struck; indeed the Pridgeon's second mate is forced to recognize this and so testifies; and then, if we kept on, as we undoubtedly did, with hard a port wheel, while the Pridgeon was clearing us, and carried the head of the Pridgeon around and turned it in the direction we were going, until both vessels were about or nearly parallel, as all agree was done, is it possible, supposing all this to have happened, that the Pridgeon's heading would then have been about north? Would it not rather have been somewhere near east? The statement of the proposition is a demonstration of it. No collision occurring in the manner required by the theory of respondent, could have left the Pridgeon heading northerly after getting clear of the Chamberlain; the collision occurring substantially on the theory, and in the manner presented by our witnesses, could have left the Pridgeon heading in no other direction than a northerly one, say between N. E. and N.

According to the testimony from the Chamberlain, she had swung about a quarter of a point from N. E., under the first order, which was to port a quarter of a point, when the bright and green lights of the Pridgeon were seen, and the order to hard a-port was then given. Under that order the best testimony is, that we had swung a couple or three points to the starboard or eastward, which would make our heading in the neighborhood of N. E. by N. or N. E. when we struck. We continued going ahead, but with engine checked down to its lowest point of turning over, and with our wheel hard a-port, until the vessels cleared. The testimony of both crews unites then in the statement that we carried the head of the Pridgeon around, and that, when or after the vessels cleared, she was heading in a northerly direction. We continued under our hard a-port wheel until the collision was all past and the wheelsman had relighted the binnacle light, and we were then heading around only E. by N.

If we were headed when struck, about N. E. by N. or N. E., (pp. 7, 19, 20,) the Pridgeon, striking us at the angle testified to by the crews of both vessels, must have headed at the instant of the collision S. E. by S. or in that neighborhood, which would agree with the statement once or twice made by the captain of the Pridgeon, that his vessel was headed right into the wind, and that the wind was dead ahead at that time, although by the mate's testimony, when he was out on deck half an hour before the collision, when the vessel was on her course S. by W., she had the wind then on the port side.

As to the course and conduct of the Pridgeon, I insist that at the time they made our light and for a little time before, they were navigating their vessel solely with reference to clearing a schooner that was crossing her bow, the officers had given all their attention to that and were not attending or giving thought to the navigation of their vessel beyond that, and the lookout was not only inexperienced and incompeten and insufficient for the occasion, but most likely had his attention diverted from his duties by the same cause.

The captain of the Pridgeon is apparently unwilling to swear definitely and positively what her course was when they made the Chamberlain's light.

The second mate can not swear to it, neither can the lookout, neither of the officers of her deck could see the compass, a fault in itself, and all these men say that they know absolutely nothing of the course except as they depended on the wheelsman, who alone could see the compass if he chose.

The master of the Pridgeon says that he could, of his own personal knowledge, know or judge of his course only by the direction of the wind, and by that standard he puts his course immediately before seeing our light certainly to the eastward of south, by saying that the wind was dead ahead. Every thing just at that time was depending on the wheelsman, so far as the course or any definite knowledge of the course was concerned.

It comes out in the testimony of one of these men, that a short time before they made our light, they had to starboard for a schooner. This schooner was standing into land on a port tack, and would, therefore, be blowing two blasts of her horn. It is pretty hard to get from the witnesses, other than the mate, a very definite idea of just when they were steering out for this schooner, but we do get a little light. For example, the wheelsman says, "We cleared some vessels shortly before the collision." The lookout says, "I heard a blast of a fog-horn before I heard the Chamberlain's whistle. That was on our port bow, two blasts of the fog-horn." The second mate says, "Just before I made the Chamberlain we heard the vessel blowing two blasts of the fog-horn. The captain told the wheelsman to starboard half a point." etc. The

[CONTINUED ON PAGE 6.

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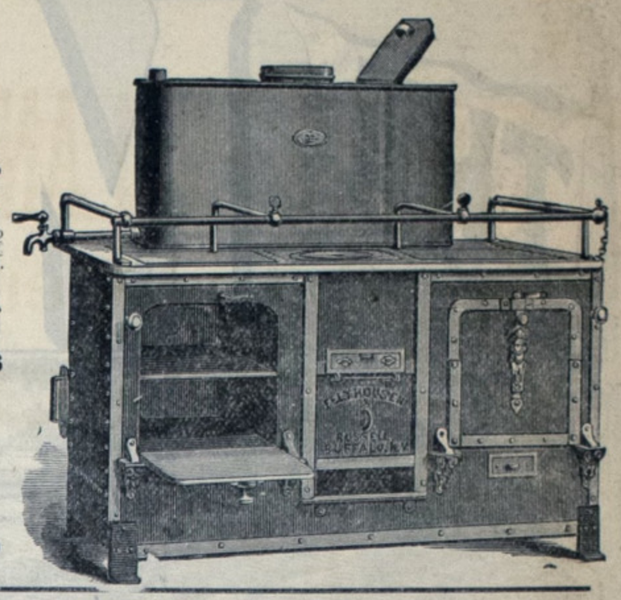

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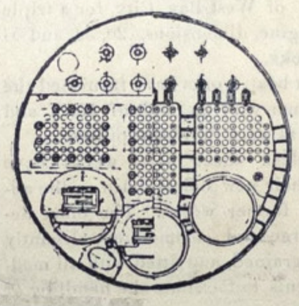

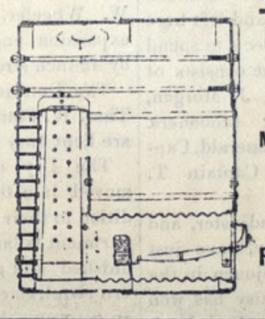

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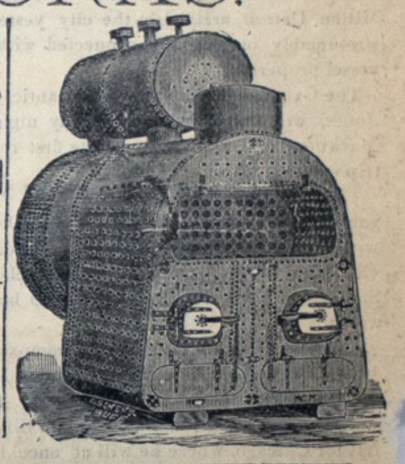

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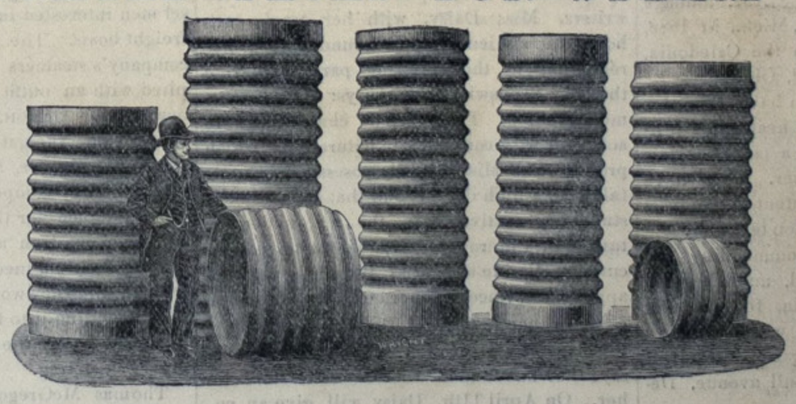

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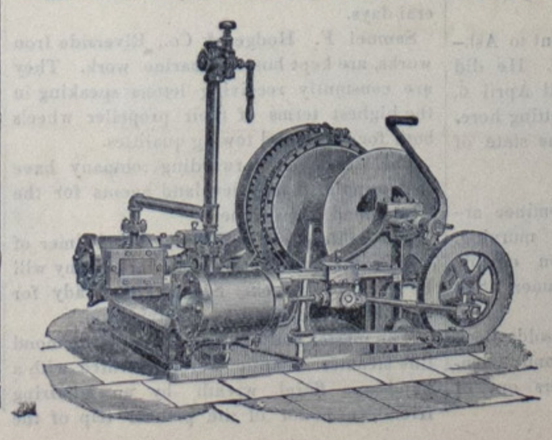

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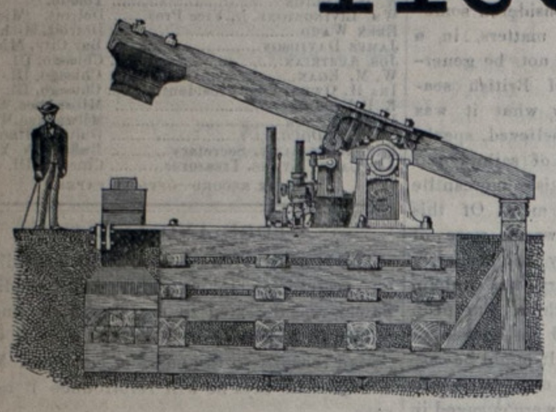

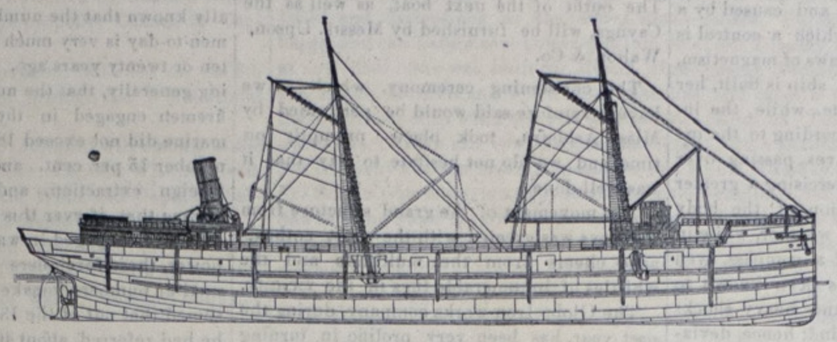

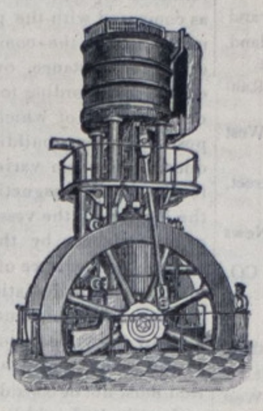

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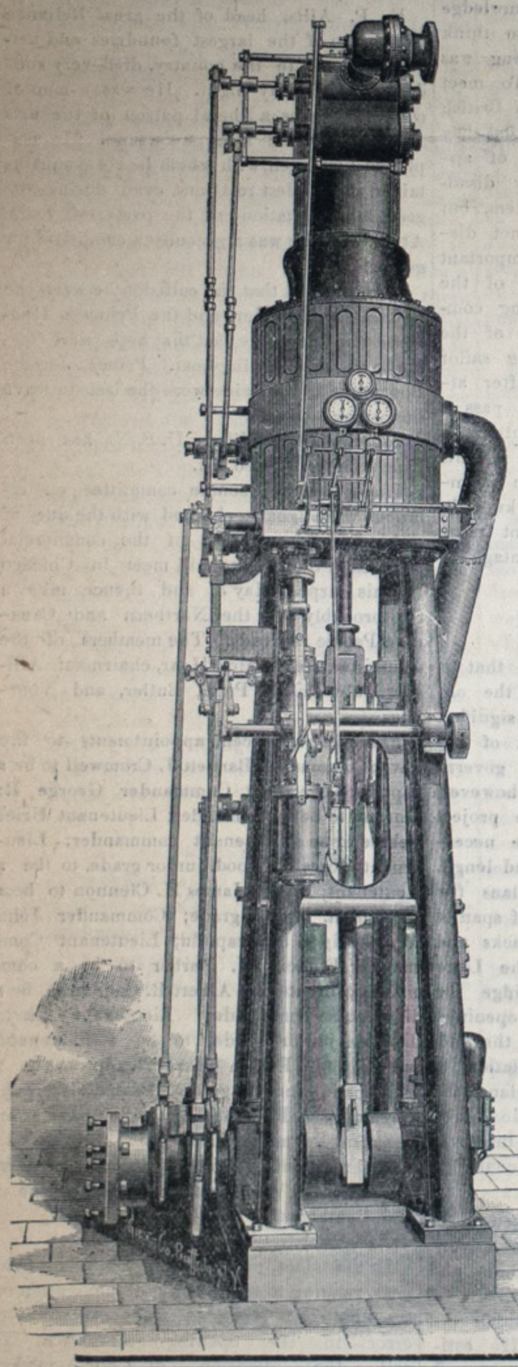

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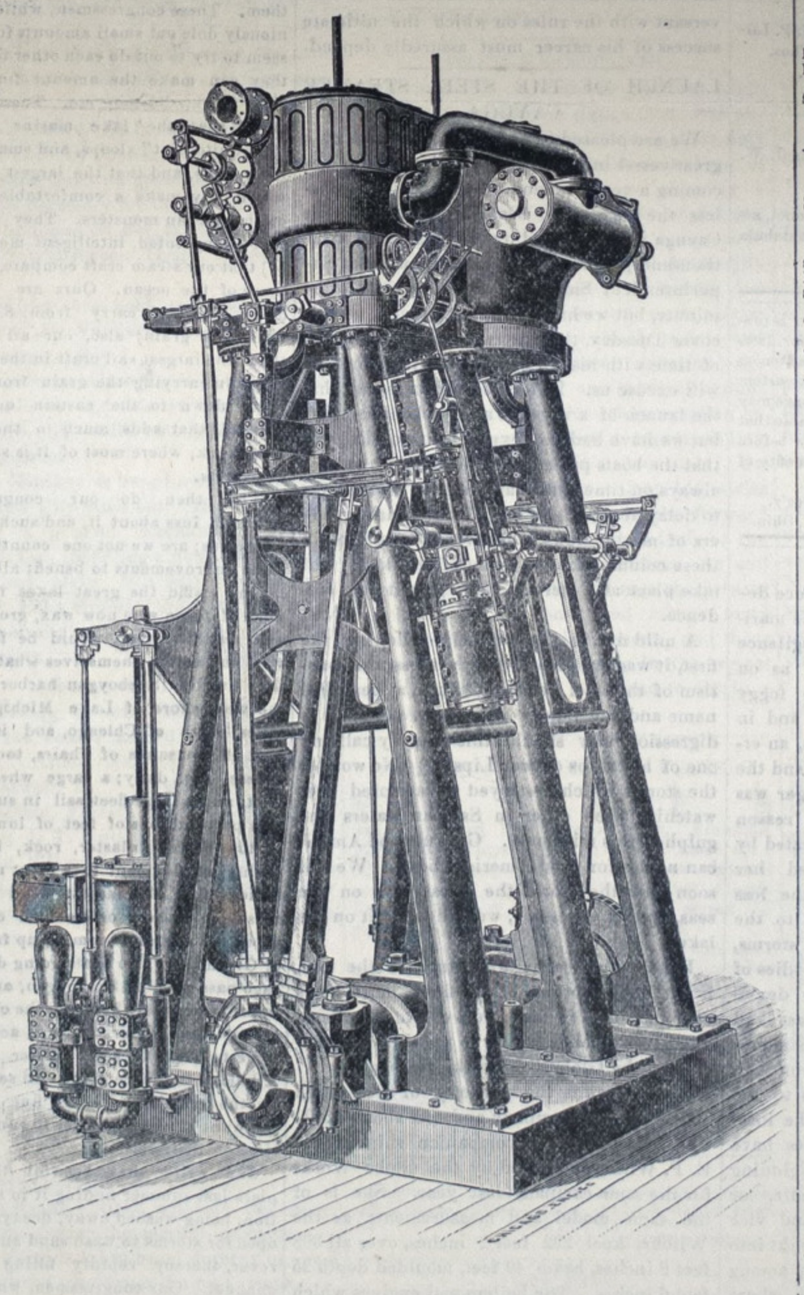

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MARINE RECORD—OFFICIAL PAPER.

The Cleveland Vessel Owners' association is prepared to receive applications for admission for 1889, on same terms as last year, viz.: 3 cents per ton on steamers, and 4 cents on sail and consort; old custom house register. The time during which tonnage may be admitted expires May 15th, but it is desirable that all crafts intending to come in should apply before the opening of navigation, and have the benefits of the entire season. Address,

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COMPASS DEVIATION.

The many changes at work to produce deviation in a ship's compass warrants the mariner in exercising the most careful vigilence at all times on the lakes, as well as on the ocean. Many times during the foggy weather prevalent on Lake Michigan, and in thick, rainy weather in other localities, an error of a point in the compass would land the vessel unexpectedly, when no danger was probably thought of, for the simple reason that the course set and steered as indicated by the compass ought to have carried her clear of all obstruction. Frequently the loss of an iron or steel vessel is attributed to the magnetic effects of fog, or to electrical storms, or by being in the vicinity of large bodies of ore, which having caused a temporary deviation by the local attraction, the compass had not regained its equilibrium in adjustments, and consequently had a different error than was formerly allowed for, previous to the compass undergoing the effects of the local attraction or aberration. While cases have been mentioned where a flash of lightning had depolarized the magnetic needle, or changed the poles from blue to red and vice versa. Vessels have also been brought into trouble by carrying opposing forces among the cargo, and we may instance a case where a master ignorantly imagined that because steel rails were well covered with coals, and in the bottom of his ship there could be no sensible attraction, and having experienced none from this source in the early part of the voyage, he was surprised to find his vessel going on shore through an error which he had felt positive could not exist. The first few years of a vessel's career are usually the most trying, especialiy when a great change latitude is made; for, not only has the permanent magnetism of the body to be taken into consideration, but the induced magnetism, ever changing with the change of magnetic latitude must be closely followed; hence, the deviation determined in the past may not be applicable in the present, and still more liable to err in the future life of the vessel.

We believe that the eminent Doctor Scoresby was the first to call the attention of ship masters and builders to the fact that he position of the ship when building was an important feature in considering the waves of magnetism, but there is more danger to the mariner in the error caused by a disturbing influence outside the ship, and belonging entirely to the locality at which a vessel may be at the time. This amount of deviation being determined as a local attraction, a distinct error as compared with the permanent or induced magnetism of the compass, and caused by a cargo, for instance, over which a control is exercised, according to the laws of magnetism, or to the iron of which the ship is built, her position when building, etc., while the induced magnetism varies according to the intensity of the magnetic waves passing over the locality of the vessel, exercising a greater or less influence by the action of the body and the temperature of the weather, while in many cases the deviation of a compass, even in approximate latitude, has been known to alter by the violent motion and heavy shocks to the vessel in a gale of wind; hence, deviation must not be considered a permanent force, and no fault should be placed on a compass which but obeys the magnetic influence surrounding it, or induced by other causes and from different sources, all and each of which may be clearly determined by an accurate observer, who will take the trouble to notice the sun's bearings by day and the direction of other celestial objects at night. By carefully tabulating the workings of the compass at the different latitudes and courses steered on the trips, the presence of any foreign or unusual influence would soon be discovered, and induced magnetism, or local attraction would have no fears for the mariner who had accurately ascertained the sources from which the apparent eccentricities of the compass might be ascribed, and as there can be no effect without a cause, a careful observer only, will be competent to locate the cause and witness the effect of induced magnetism in his compasses, acting in direct accordance with the magnetic influences as they become altered by any of the foregoing circumstances. On the other hand it may be said, "know nothing, fear nothing," and a happy go lucky kind of career may in some cases prove tolerably successful, but the energetic and ambitious mariner would endeavor to find cause, and be conversant with the rules on which the ultimate success of his career must assuredly depend.

LAUNCH OF THE STEEL STEAMER CAYUGA.

We are pleased to say that the launch of a great vessel in this city of Cleveland is becoming a very common occurrence; nevertheless the successful, beautiful launch of the Cayuga was witnessed by not less than three thousand people. It is well known that Superintendent Smith is always on time to the minute, but we had the inadvertency to discover Tuesday, that he was somewhat ahead of time with his preparations. We trust he will excuse us. It has become a legend that the launch of a vessel is always behind time, but we have had the experience to discover that the boats put afloat at the Globe yard are always on time, and that the man who thinks to delay always "gets left." So, gentle readers of marine news, whenever it is asserted in these columns that an event of this kind will take place at a certain hour give it due credence.

A mild day in April, closely following the first, it was our pleasure to witness the baptism of the steel steamer Cayuga, a beautiful name and one purely American. (Permit a digression, why should this country call any one of her ships of war Lipsic?) No wonder the storms which destroyed the armored fleet watching each other in Samoan waters engulphed this misnomer. Give us good American names for good American boats. We will soon show the world the finest navy on the seas, and, if necessary, we will build it on the lakes.

But the Cayuga, as we return to the text, is without doubt one of the finest built boats ever put afloat in the waters of old Cuyahoga and gives much credence to the skill and energy of the Globe Iron works company.

The Cayuga is the property of the Lehigh Valley railway company and cost about $250,000. She is to be a companion ship of the E. P. Wilbur, launched by the Globe Works for the same company last year. She is of the same model and measurements as the Wilbur, keel 292 feet 2 inches, over all 308 feet 8 inches, beam 40 feet, moulded depth 25 feet 6 inches. The boilers and engines which go into her are also of the same size and power as those in her companion ship. Her engine is triple expansion; cylinders 24, 38 and 61 inches, with a 42-inch stroke. She went into the water with machinery aboard. Boilers are ready, and it is estimated that she will be finished up ready for sea by about the middle of May.

The Cayuga's carrying capacity is estimated at 2,650 net tons on a 15½ foot draft, or about 3,000 net tons on a 16½ foot draft. After the launch her draft forward was found to be 3 feet 11½ inches, and aft 7 feet 8 inches On the experience of the Wilbur her speed is safely figured at fourteen miles per hour.

The unusual number of fine vessels in the vicinity was a matter of comment. Nine steel steamships, besides the beautiful steam yacht Peerless, were all lying at short distances: the Wilbur, of the Lehigh Valley line; five handsome steamers of the Northern line, and three elegant steamers of the Mutual Transportation Company. With the Cayuga added to the list and three more steel vessels under construction it was the genral remark that such an array of vessel property, all of such superior character, was seldom if ever seen together.

The next Lehigh Valley boat, the Pontiac, will be launched about the middle of May. The outfit of the next boat, as well as the Cayuga, will be furnished by Messrs. Upson, Walton & Co.

The christening ceremony, which as we have heretofore said would be performed by Miss Ashburn, took place promptly on time, and we do not hesitate to say that it was well done.

The movement of the grand structure from the ways was greeted with the most enthusiastic cheers from the multitude and the whistles of innumerable tugs in the vicinity.

The Globe Iron works company, during the past year, has been very prolific in turning out fine steamboats, and we take this occasion, especially, to compliment the firm on the Cayuga. This fine, new steel steamboat is equipped in first-class style, first note being the Providence steam windlass, then follows the Williamson Brothers steam steering gear and, finally, all things which go to make up the modern fitted out boat.

The cost of the Cayuga will be about the sum set against the Wilbur and it may be said that it is well earned by the builders. Yes, and should those builders try to duplicate her for the same money they would hesitate to try it. As usual, the Cayuga has one of the peerless Providehce steam windlasses from the American ship windlass company, Providence, R. I.

OUR CONGRESSMEN.

SHEBOYGAN, WIS., March 2, 1889.

Special to the Marine Record.

Sheboygan harbor, Wis., is singled out by the congressmen to strike out the appropriation, or reduce down what little there is, for the improvement of said harbor. Just why the members from the east should oppose the improvements on the lakes is a conumdrum, and can be attributed only to their oversight of the magnitude of the lakes and the crafts that ply upon them. These congressmen, while they parsimoniously dole out small amounts for lake harbors, seem to try to out do each other to see how large they can make the amount for such ports as New York, Boston, etc. These men seem to think that the lake marine consists of a "mosquito fleet" sloops, and small punt coasting vessels, and that the largest of our vessels would only make a comfortable yawl for some of their ocean monsters. They are not aware (but as appointed, intelligent men they should be) that our steam craft compare favorably with those of the ocean. Ours are from 1,500 to 3,500 tons, and carry from 8,000 to 150,000 bushels of grain; also, our sail vessels, among them the largest sail craft in the world, all engaged in carrying the grain from our western ports down to the eastern on these lakes. It is this that adds much to the prosperity of New York, where most of it is shipped to foreign ports.

Why then do our congressmen make so much fuss about it, and such great hostility toward us; are we not one country, and are not these improvements to benefit all? Were it not for the traffic the great lakes furnish the east some of those who now wax, grow rich and fat as a result thereof, would be forced to come west and see for themselves what a big country they live in. Sheboygan harbor is situated on the west shore of Lake Michigan, about 132 miles north of Chicago, and is the shipping port of thousands of chairs, tons of iron, hay, cheese, etc., daily; a large wheat growing district, and a large fleet sail in summer bring to this port millions of feet of lumber, thousands of tons of coal, plaster, rock, bark, wood etc., giving employment to a great number of men; besides this, the largest wind bound port for vessels in distress or disabled on this western shore. All vessels coming up from the Straits or Green Bay, also boats going down from Chicago pass close by Sheboygan, and if the harbor improvements are kept up, the channel dredged, giving deep water it will accommodate the largest boats to seek shelter in during gales. All along the shore north and south of this port lie the remains of many fine vessels, lost for the want of deeper water to run into during a time of distress.

The writer has been on the south harbor piers last summer finding it in so bad a condition, being washed away, decayed, yes, in fact, open for storms to wash sand and water into the rever, thereby rapidly filling up Sheboygan channel. Our congressmen, what an oversight to let such destituted piers lay from years unto years. The writer, by chance, sounded the water and found a speody want for dredging. It has been said that the government dredges have been doing no work at this port for three or four years, and when here last dug a number of holes, instead of a clean cut, equal depth channel. The writer also understood that they are extending the piers out into the lake every summer, to overcome the sand bar forming outside said piers, and with such little appropriations offered that it will take years to do it. Our congressmen, with a surplus in the treasury, one of the best expenditures that could be made would be to finish up improvements such as these. All our vessel men will feel thankful, and our congressmen could be taken by the hand and told, "well done thou good and faithful servants," and the entire western shipping interest would shout in unison "Amen." We have a prosperous lake marine, exceeding in value that of the ocean, and all we ask is fair play.

As far as Sheboygan is concerned, we say, give She-boy-agan her chance. She's all right.

A.

DECLINE IN THE NUMBER OF BRITISH SEAMEN.

Mr. James Hall, who is considered something of an authority in such matters, in a recent speech said: "It might not be generally known that the number of British seamen to-day is very much below what it was ten or twenty years ago. He believed, speaking generally, that the number of sailors and firemen engaged in the British mercantile marine did not exceed 180,000 men. Of this number 15 per cent. and upwards were of foreign extraction, and they might fairly assume that, if ever this country was unhappily to be engaged in war with a European power, these foreigners would in larger or smaller numbers forsake us. It might be assumed that out of the 180,000 men to which he had referred, about 40,000 were engaged in the engine room. In other words it was probable that the number of English seamen to-day did not exceed 100,000 to 110,000 men, and, as a large number of these belong to the royal naval reserve, in case of hostilities breaking out, they would necessarily be drafted into the ships of the navy, and probably a large portion of the remainder would be found on board the large steamship companies vessels engaged in the different passenger services, so that the steamers employed in the carrying trade of this country, would have great difficulty in finding men to navigate them. We were not creating seamen. Our merchant steamers carried few or no boys, and to their sorrow be it said, many of them were almost entirely manned by foreigners. He spoke from a knowledge of the fact, for he knew the difficulty experienced in getting ships for boys, many of whom were taught in the winter evenings navigation and passed without exception the board of trade examination, qualifying themselves in theory for the position of chief mate. Boys who could acquire such a knowledge must necessarily have good heads upon their shoulders, and yet to many such, owing to the difficulty we have in getting them ships, this knowledge was thrown away. He was disposed to think that the policy shipowners were persuing was neither a wise nor a patriotic one. To meet the gradual decrease in the number of British seamen, he would venture to suggest that they should resort to a compulsory system of apprenticeship. He could not see any disadvantage in the adoption of such a system, but what he did see was that, in the not distant future, it might have an important bearing on the private, not to speak of the national interests, of the ship-owning community. He might add that in some of the foreign royal navies every young sailor employed in the mercantile marine, after attaining a certain age, was bound to pass a short time in the navy of such countries, a system which, if it were adopted in this country, would be, so far as the men themselves were concerned, if they only knew it, and for reasons to which I need not more particularly refer, of immense advantage to themselves personally.

THE OLD RIVER BED.

It is the opinion of Engineer Rice that it would be unwise to begin to open the old river bed until the government has signified its intention to carry out its portion of the work. Congressman Burton has the government portion in charge. The board, however, gave its dying voice in favor of the project and ordered the engineer to make the necessary surveys as to the depth, width and lengtl. of the channel, draw the necessary plans for the location of the piers and length of span of the bridge required by the railway tracks and communicate with the engineer of the Lake Shore railway as to the kind of bridge the company intend building across the opening. Mayor Babcock said that to open the old river bed would give an accommodation to lake trade which would make Cleveland the ore center as well as benefit her in other branches. He regards it as the best improvement for the city's interests that could be made.

Engineer Rice said that he had learned of a pool in dredging companies. He advertised a few days ago for dredging bids and the lowest one received was from Stang & Kerr of Lorain for 27 cents per cubic yard per year or 24 cents for five years. He estimated that the actual cost of dredging was 8 cents per cubic yard and said that if there was time he would reject all bids, but as navigation is about to open he advised that a one year's contract be entered into, which was done.

The cruiser Sperber and the corvette Alexandrine will deport for Samoa to replace the German war ships wrecked at Apia.

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MARINE RECORD—OFFICAL PAPER.

FORE AND AFT.

The Hon. Mr. Kirkpatrick's bill, providing for reciprocity in wrecking in Canadian waters, was defeated in the Canadian senate to-day by a vote of 34 to 26. The bill was passed recently in the house of commons. Mr Kirkpatrick says he will reintroduce it next year.

A dispat from Mackinaw said that the ice was still packed solid in the north and south passages of the straits.

The schooner Schuylkill has been chartered at Erie for coal to Escanaba at 50 cents per ton.

Captain H. Cummings of the Australasia and Captain Charles Hutchinson of the Germanic arrived to take charge of their boats.

St. Clair river is still jammed with ice. The propeller Atlantic was unable to pass up, although assisted by the tug Swain.

The directors of the Reading trust company, assignees of the Reading iron works, have met and appointed committees and made other arrangements to assume formal charge of the concern. One of the directors said after the meeting that under no circumstances did he think the trust would continue the business of ihe iron works. The company might, said the directors, work up the stock and material on hand, but eventually the immense establishment would be sold to the highest bidder.

The value of Samoa as a United States naval or coaling station was blown away in the terrible cyclone.

E. P. Allis, head of the great Reliance works, one of the largest foundries and machine shops in the country, died very suddenly last Monday night. He was a man of cultivated tastes, a liberal patron of the arts and had amassed a large fortune. He employed 1,500 men, with whom he always maintained the kindest relations, even during the great labor agitations of the past few years. At one time he was a greenback candidate for governor.

It is reported that the collision between the Comtesse de Flanders and the Princess Henriette was due to the fact that both were trying to avoid a fishing boat. Prince Jerome Bonaparte and his aide were the last to leave the wreck.—Moral.

Captain Henry Wilson, U. S. N., has been placed on the retired list.

The special state senate committee on relations with Canada, charged with the duty of making an investigation of the commercial features of the subject, will meet in Chicago for this purpose May 3, and thence take a trip probably over the Northern and Canadian Pacific railroads. The members of the committee are Senator Hoar, chairman; Allison, Hale, Dolph, Pugh, Butler, and Voorhees.

Following are recent appointments to the navy: Commander Bartlett J. Cromwell to be a captain; Lieutenant Commander George R; Durand to be a commander; Lieutenant Uriel Sebree to be a lieutenant commander; Lieutenant Moses L. Wood, junior grade, to be a lieutenant; Ensign James H. Clennon to be a lieutenant, junior grade; Commander John W. Phillip to be a captain; Lieutenant Commander Francis M. Barber to be a commander; Lieutenant Albert R. Conden to be a lieutenant commander; Lieutenant David Daniels, junior grade, to be a lieutenant, senior grade; Ensign Harry Kapp to be a lieutenant, junior grade; Passed Assistant Paymaster J. R. Stanton to be paymaster. Assistant Paymaster Thomas J. Cowie to be a passed assistant paymaster; Second Lieutenant Harry K. White, marine corps, to be a first lieutenant.

In the tables, printed about this time of the year, relating to the opening of navigation on the chain of lakes, we frequently find an error in the opening for 1882. We call the attention of our readers to the fact that Captain Grummond's tug Winslow left Detroit March 6, 1882, passed through the Straits of Mackinac, south passage on March 9, and arrived at Manistique all well, where, after inspecting the stranded vessel Northern Queen, she returned to Detroit. This proves a vessel passing through the straits several days ahead of the date usually given by our contemporaries.

AROUND THE LAKES.

[CONTINUED FROM PAGE 1.]

CHICAGO, ILL.

Special to the Marine Record

The steamer Lawrence of the Northern Michigan line will leave Thursday for Cheboygan and intermediate ports.

Captain Fred Rae and engineer John Broderick arrived here Saturday to fit out the steamship Henry Chisholm.

Captain N. L. Sherwood is here from Cleveland to fit out the schooner S. P Marsh, which he will command this season.

The owners of the steambarge M. B. Covell made use of her gratuitously all last week dredging the bar, off Whitehall Mich. When they commenced work there was 6½ feet of water over the bar, there is now 10 feet.

Captain Winchester arrived Wednesday from Toledo to fit out the schooner C. C. Barnes. She is loaded with corn for Buffalo.

At Miller Brother's shipyard the schooner Marion W. Page is in dock for new deck beams and decks, new stanchions covering board bulwarks, rail and re-calking all over. The barge Golden Age was in dock and received new assistant keelsons, new floor, new frames forward and re-calking all over. The steambarge Ida M. Torrent is in dock for new deck beams and decks, new stem, calking top sides and a new boiler 8½ x12 by Johnson Brothers, Ferrysburg, and a new shaft. The steambarge Emma E. Thompson is in dock for a new engine 22 x 22 by Torrant and boiler 7½ by 12 by Johnson Brothers. The steambarge Annie Laura was in dock for a new boiler 6½ x 12 by Johnson Bros., Muskegon. The steambarge D. W. Powers was in dock for a general overhauling. The schooner E. M. Stanton was in dock and is receiving a thorough rebuild. The steamship Fred Mercur is receiving a new rudder. The schooner Butcher Boy is receiving a new center board, the schooner Emeline was in dock for a new center board box; the schooner Cheney Ames has received a new mizen mast and been converted into a three and after.

Miller Brothers are building a good looking tug 60 feet over all, 14 feet beam, 7 feet hold, for the Illinois Stone Company to take the place of the tug Bell Chase.

Captain O. M. Green will leave here Sunday to take charge of and fit out the steamship Calumet at Buffalo.

Oscar Clow, shipbuilder, has been doing considerable repairs on the schooner Libbie Nau, comprising new stanchions, stringers, covering board, rail and knightheads also new frames aft and 5 strakes of new plank outside forward and aft. He also put a new bow on the schooner Sunrise and new stringers, stanchions, covering board and rudder post on the schooner Margaret Muir.

Captain Joe Wilson and Charles Schick, have gone into partnership as dealers in fresh and salt meats. Vessel supplies a specialty, at 81 South Canal street, three doors from Madison street. Captain Joe will be around as usual looking after his old friend's interests, and the firm hope old friends will give them a call; they will be well served and treated.

Captain P. J. Lavoo arrived Sunday, to fit out the schooner Hattie A. Estell, formerly the Mary L. Higgie, her name having been changed since last fall.

At the Chicago dry dock company, the schooner A. J. Mowry was in dock for new frames fore and aft, and some outside planking and bottom calking. The schooner Adirondac received new ceiling, frame, knight heads, apron, new keelson, bottom plank and refastened and recalked. The steambarge A. E. Wilds received repairs to stern bearing and calking. W. N. Colver their well known book keeper has resumed his duties after a five months vacation in Florida. WILLIAMS.

FRANKFORT, MICH.

Frankfort harbor and vicinity is nearly clear of ice. Keeper Vance resumed lighting pierhead light March 22.

The first arrival from outside was the tug Maria B. M. of Milwaukee, March 25th, she will engage in fishing. The tug John Smith arrived from Manistee 26th, at which place she received extensive repairs to her boiler the past winter.

Steamer Sanford commenced making daily trips to Manistee March 16th, the propeller Dewar will follow in a few days.

Tugs L. Q. Ranson and Maggie Lutz are engaged in fishing. Ferry tug Cynthia is running, also tug Alice M. Campbell. Life stations resume April 1st. BURMEISTER.

SANDUSKY, OHIO.

Special to the Marine Record.

The first clearance of the season here was taken out by the steamer Kunz.

The new boat being built by Mr. Andrew Wehrle at Monk's shipyard is rapidly nearing completion.

The steambarge Norma is making regular trips between here and Marble Head fetching stone for the Ohlemacher Lime Co. having began to run March 19th, 1889.

The bay is clear of ice now.

The barge Pacific was sold by Mr. Fred Groch to Messrs. Stafford and Bates of Cleveland, Ohio, and will be delivered there as soon as the weather permits.

Mr. George Douglass and Mr. Joe Allen of Sandusky, Ohio, have bought the scow Kate Grant for $600.

The tugs Myrtle and Dan Connelly have had a thorough overhauling and are ready for business.

The barge Pacific took a load of lumber to Kelly's Island last Thursday for Mr. Koster.

The steam barge Ohio, which wintered here this year, has had a new deck put in her and has been re-painted.

The steamer City of Sandusky has been thoroughly re-calked and re-painted and will come out in grand style this season.

GROH.

OSWEGO, N. Y.

The Myles will be sailed by Captain Oliver Patenande, and the propeller Canada by Captain Chestnut.

In 1880 the Pierrepont left here on the 6th of March and went through the Wolfe Island canal to the cape.

Captain John O. Johnson will command the schooner P. B. Locke; Captain William Reed, the schooner Hattie Wells and Captain Sheldon the schooner Josephine.

The information that Hon. Mr. Kirkpatrick's wrecking bill had received a six months' hoist by the senate was unpleasant news for mariners here.

The Celtic and Lake Michigan are in good shape. Captain Wm. Cavers will be on deck on the Celtic again, and Captain Jerry Clifford will have the Lake Michigan.

Some $1,500 has been spent on the Gulniar at Hamilton. Her master will be Captain W. Skelton. Captain Thomas Armstrong will sail the Ella Murton, which has received new knees and braces.

As Captain Sam Malcomson will run the Hamilton steamboat company's new steamer Majeska this season, the Acadia will be commanded by his son, Captain Alex Malcomson, and Mr. John Malcomson will return from Port Arthur to be purser. Another Captain Sam Malcomson will sail the Laura, of Toronto.

The Rideau Belle is lying in the basin at Kingston Mills and a large gang of men are at work on her repairing and fitting her up. She will be thoroughly overhauled for the accommodation of passengers and on opening of navigation will commence her regular trips to Smith's Falls. Captain Flemming will command her again this year.

Harbor captains, Jssie Breck, E. Booth, jr;, Annie Foster, James Kennedy; Philo Bennett, D. Bates; Niagara, J. Morgan; Kathleen, W. Bajus; Julia, John Saunders; Grantham, T. Crawford; Queen of the Lakes, Jos. Parsons; Annie Faulkner, W. Dandy; Scotia, S. Fraser; Southamton, Jno. Grey; Blake, Jno. Irving; Clara White, J. Bubbia; the barge Minnie, Ed. Booth, sr.

Garden Island captains, D. D. Calvin, A. Malone; Armenia, G. O'Brien; Denmark, L. O'Reilly: Prussia, A. Milligan; Bavaria, Jno. Marshall; Norway, H. Smith; the new barge, A. Larush: Hiram Calvin, D. Lafavre; Jno. A. Macdonald, A. Gignace; Johnston, Suave; Traveler, J. Sullivan.

KINGSTON, ONT.

The Rideau canal will be opened for navigation about the 25th.

The propellor Scotia and consorts have been chartered to carry timber all next season at rates a little better than those of last year.

A special telegram, from Mackinaw City reads that a cold, strong, westerly wind has blown to-day. The ice has steadily moved down the main channels, forming high ice walls in places. It is freezing hard to-night which will make it very doubtful about boats being able to go through.

The dimensions of the new steamer Mojeska, being built in Hamilton, for a Hamilton firm are as follows; Length of steamer 185 feet; breadth, 30 feet; between decks, 8½ feet. The steamer will be built of steel, to have main deck, promenade deck and awning deck. The main saloon, which is on the main deck, will be finished in polished mahogany, upholstered in morocco leather and floor laid with Axminister carpet.

The following is a list of the M. T. Company's barges, with the names of their captains: Captain Le Beauf, Albina; Captain Olivia Cati, St. Stanesla de Bosth; Acadia, Captain R. Bradley, Montreal; Bella, Captain John Mallott, Kingston; Cleveland, Captain Joseph Lalonde, Valleyfield; Chicago, Captain A. Charlebois, Point Claire; Colborne, Captain F. Monette, Valleyfield; Corn Crib, Captain Demars Latour, Valleyfield; Detroit, Captain Jas. Bradley, St. Laz, Vaudreuil; Duluth, Captain G. Hebert, Valleyfield; Dorchester, Captain M. Lefebine, Valleyfield; Eagle, Captain E. Lebeuf, Valleyfield; Europa, Captain L. Benoit, Valleyfield; Glengarry, Captain A. Simmonds, Cedars; Harvest, Captain N. Lalonde, Valleyfield; Iowa, Captain M. Bisonette, Valleyfield; Kinghorn, Captain A. Hebert, Valleyfield; Lancaster, Captain Julian Trudel, Melocheville; Montreal, Captain M. Lefebine, Valleyfield; Maggie, Captain N. Mallette, Cornwall; Nebraska, Captain Thomas Daust, Valleyfield; Senator, Captain H. Bonin, St. Timothy; Star, No. 1. Captain H. Boyer, Valleyfield; Toledo, Captain Theo. Leduc, Kingston; Toronto, Captain M. Moreau, Cedars; Wheat Bin, Captain A. Monette, Valleyfield.

GRAND HAVEN, MICH.

Special to the Marine Record.

The Grand Haven ship building company are building for W. R. Loutit and Co., a splendid looking steambarge 176 feet keel 192 feet over all 33 feet beam, 13 feet hold. Engine fore and aft compound, 21 and 38x36, built by the Montague iron works. Scotch type boiler 12x22, built by Johnson Bros' Ferrysburg. Trout wheel 10 feet diameter The American ship windlass company's windlass and capstans She is well forward, and her machinery is being placed in her. She is a very strong built boat, and is as good as excellent timber, iron and good workmanship can make and is a handsome model. She will be completed about May 15th.

The splendid new barge Mary A. McGregor, launched from the same company's yard on the 31st of January, is of the same model build, and dimensions as the above steambarge, and can have steam power put into her at any time. She was built for Messrs. Monroe, Boyce, Howlett and McGregor. She has the American ship windlass and capstan forward, and capstan aft; two of Filer and Stowells company's steam hoisting machines and a 5x7 Scotch type boiler to supply steam for them. She is being fitted out by George B. Carpenter & Co, Chicago. Capt. Dan F. Miller will command her.

The steambarge Mary H. Boyce, Captain W. F. McGregor, has received new main and mizen masts, two new Filer & Stowell company s steam hoisting machines, and steam power to her pumps. She is fitting out and will be ready for work at once.

The fine side wheel steamer, City of Milwaukee, is being fitted out for immediate service.

The steam barge Charles Marshall looks grand in her new coat of paint.

Captain Alex. Smith was putting the finishing touches on the handsome schooner, Charles E. Wyman.

The Goodrich steamer Menominee, arrived here on Thursday last, for the first time this season.

T. W. Kirby, shipbuilder, is building a steambarge 187 feet over all, 33 feet beam, 12½ hold. Fore and aft compound 36 & 30x19 by Samuel F. Hodge & Co, Detroit Marine steel boiler 9x15, by Johnson Bros' Ferrysburg. She will have the American ship windlass company's windlass and capstans. She has steel plates on two sides of keelson, 13x⅜, steel arches on frames, and two steel belts outside. She is being built of very fine timber and will be completed by May 1st The Spring Lake iron company have chartered her to run between Escanaba and Fruitport the coming season. Captain H. C. McCullum will command her, and John Golden will be engineer.

T. W. Kirby has just completed the new passenger steamer Joe. She is 90 feet over all, 17 feet beam, 6½ feet depth of hold. Engine high pressure, 12x12, by H. Bloecker & Co., boiler 5x10, by Johnson Bros. Her cabin is being fitted out with great taste and every convenience necessary for the passenger business, will be found on her, including a piano. She will run between Grand Haven and Fruitport.

T. W. Kirby has sold the tug Webster Batcheller to D. Vanderven and others, mill owners. Sturgeon Bay.

The steambarge Alice M. Gill, Captain Geo Robertson, looks first rate in her new dress suit of green and white, and is ready for her season's business.

Captain Minskey is here having the steambarge Huron City fitted out. Her machinery is getting a general overhauling by H. Bloecker & Co., including a new double crank and new bed plate. She will run between Deer Park, Lake Superior and Michigan City, with lumber and will have the Zach Chandler as her consort. WILLIAMS.

AMHERSTBURG, ONT.

The following of our lake captains will command the vessels named the present season: C. C. Allen, Sheffield; D. Nicholson, Jessie Farwell; D. J. Duncanson, Spinner; E. C. Gatfield, Forest City; D. Girardin, R. J. Hackett; J. T. Hutton J. Tormey, Swain; Rich. Tobin, Wilcox; Thomas Carney, Crusader, and Tim Lemay, Annie Smith. The majority of our captains leave Monday, to take charge of their boats.

MARINE CITY, MICH.

Captain Al. Neal, of Port Huron, was in the city circulating an agreement among the owners of lumber boats, not to start their boats before April 25. We understand that the agreement was quite generally signed by vessel owners here.

The tug Roy will leave for Cleveland as soon as the ice will permit. She will do harbor towing at that port this season.

Captain Frank Cottrell will sail the barge Thos. Gawn during the coming summer.

A. G. Westbrook has been improving and repairing his dock during the past week.

Captain George Case will go as mate of one of the Northern line boats on which Captain J. P. Cottrell will go as master.

Captain Dan'l. McLeod, the inspector of hulls for the Inland Lloyds Register, during his visit in this city last week, informed our reporter that he considered the steamer building at Morley's yard, for Captain James Corrigan and James Huntington of Cleveland the best hull now in course of construction on the entire chain of lakes. That is the kind that Captain Morley builds.

Everything is ready here for the opening of navigation. All boats are fitting out and ready to leave at any time.

Captain P. J. Cottrell, last season of the steamship Wm. B. Morley, will command the steel steamship Northern Queen, of the Northern Steamship line of Superior.

The steam barge C. F. Curtis and tug Roy tried to get to Detroit last Saturday, but could not get through. The Curtis returned to this port, but the Roy was obliged to remain in the ice, not being able to work out.

First engineer Mike Owens and crew left here Tuesday to join the propeller W. H. Gratwick at South Chicago, and first engineer William Brake and crew to fit out the steambarge R. L. Freyer.

Mr. John Atwell left here for Erie, Pa, to join the steambarge George King as first mate. Captain Harry Lawrence and brother left Tuesday for Ashtabula, O, to join the tow barge Teutonia. Captain Hiram Robinson, and captain William Brown left for Cleveland on Tuesday. Captain Frank Cottrell with a portion of his crew started for Erie, Pa, Tuesday to join the Thomas Gawn First engineer Sid Jones and his crew left here on Tuesday for Ashtabula, O., to join the steambarge Cumberland. Joseph Richardson has gone on to Cleveland to join the propeller V. H. Ketcham as mate.

ASHTABULA HARBOR, OHIO.

Special to the Marine Record.

The Lake Shore lighter was successfully launched from Devney's shipyard last week, with propeller wheel and engine in place. She gets her motive power from the steam hoist usually carried on deck, and will be used for lightering and coaling boats. Captain Devney is building another large lighter where the above was launched.

The dredge Erie, is cleaning the rock from the Lake Shore channel where blasting was done.

The dredge Hercules is receiving a thorough repair, and will be ready for business in about two weeks.

The propeller Vienna is having buts calked and otherwise getting ready for sea.

Sohooner Verona is having part new main rail and receiving other necessary repairs.

Navigation is practically open here and vessel men are arriving every day.

F. L. T.

BUFFALO, N. Y.

Coal shippers here are not in quest of tonnage. The Pennsylvania company has loaded the City of Cleveland and Clarion, and today is to load the Gladstone. There is a great deal of coal on the docks here. There being no demand, the coal was sent here and dumped. Western ports are still well supplied with stock.

FREIGHT OUTLOOK.

Although the several ore charters made recently, are at a lower figure than was anticipated, yet the general tone is, that only the weak kneed element have passed out of the open tonnage market still showing a firmer front, holding that a rate of freight commensurate with the service and risk to valuable floating property must eventually rule the opening prospect. Of course the opening of navigation has had a considerable influence, yet when it is understood that an early spring means a larger average of grain, and an earlier and more abundant crop gathered in time for transportation by water, it will be seen that a corresponding amount of good is certain to eventuate. On the other hand the immense iron industries must have the material brought forward which the papers devoted exclusively to the iron interests placed at between six and seven million tons. In any case the present outlook may be considered rather more favorable than it was last season, and there seems to be more unanimity in the vessel interests, with a desire all round to obtain a fair average rate of freight.

BEDDING SUPPLIES FOR VESSELS

are furnished as: *Comfortables, Blankets, Tablelinens. Towels. Sheets, Pillow Cases* etc., which the latter, we sew to order at shortest notice, by the well known Boston Dry Goods Store of Kohn & Co. 213 Detroit street 2d door from corner Pearl, Cleveland O.

We prove to any customer that we can save them 20 per cent., which no big expensive establishment can afford to. KOHN & Co.

FOR SALE.

HAVING sold our steamer City of Rome we are now offering for sale the BARGE H. R. NEWCOMB. She is well equipped, capacity 50,000 bushels of corn or, 1,350 tons of ore, on 14½ feet draft. She is now lying at Cleveland. For further particulars apply to SMITH, DAVIS & CO., Buffalo, N. Y.

WANTED.

A STEAM-BARGE WANTED, capacity not less than one thousand tons. Address, stating price, etc. J. T. MATHEWS,
Toronto, Ontario.

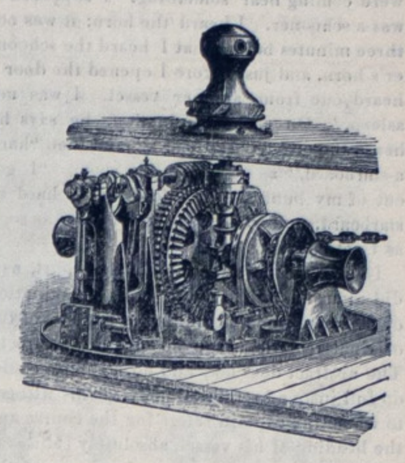
FOR SALE.

A FIRST-CLASS PASSENGER steamer with power to drive her 12 miles an hour; 100 feet over all, 18 feet beam, draws 7 feet of water and carries 100 pounds of steam. Enquire at the RECORD office for further particulars.

PROPOSALS for repairs of West Pier at Dunkirk Harbor, New York.—United States Engineer office, Buffalo, N. Y., April 4, 1889. Sealed proposals in triplicate will be received at this office until 12 M., eastern standard time May 4, 1889, for the repairs required by the West Pier at Dunkirk Harbor, N. Y. Attention is invited to the acts of Congress approved February 26, 1885, and February 23, 1887, vol. 23, page 332, and vol. 24, page 414, statutes at large. All necessary information may be had of Mr. Walter Scott, Dunkirk, N. Y., or of the undersigned.
F. A. MAHAN, Captain of Engineers.

THE PROVIDENCE WINDLASSES.

The accompanying cut represent different styles of windlasses, being a small proportion of the almost numberless patterns of steam and hand windlasses and capstans manufactured by the American Ship Windlass Co., at Providence, R. I. As the yachting season is close at hand, it behooves those who purpose cruising during the season to look well to their ground tackle and purchase for holding and heaving it in, for, next in importance to the motive power, sail or steam, comes the windlass. And those of inferior make should be discarded in order to get the benefits of the improvements that have been patented and applied since.



This company have the most extensive windlass plant in the world, and still they are obliged to keep building and extending it every year. Nine-tenths of all the windlasses and capstans used in this country are built by this company. They guarantee every job they turn out, and we have yet to hear of an imperfect working machine ever coming from their works. Below is a list of orders received by this company since the one published Feb. 2, 1889.

Yacht Windlasses.—Yacht building by Henry Piepgras, City Island, a Providence pump brake yacht windlass, with automatic locking gear, and Emery & Cheney chain stoppers. Yacht building by Henry Piepgras for Mr. Fred Grinnell, Providence, a Providence yacht pump brake windlass with Grater's friction locking gear. Yacht building by same party for Mr. E. D. Morgan, N. Y., a Providence yacht pump brake windlass, with automatic locking gear. A Providence yacht pump brake windlass for steam yacht Evolution, Mr. W. M. Jackson, N. Y., with Grater's friction locking gear, bronze beam and clamps, and Emery & Cheney elastic surge relievers. A Providence pump brake yacht windlass for yacht building by Atlantic Works, East Boston. A Providence pump brake yacht windlass for schooner yacht building by Geo. Lawley & Son, South Boston, for Mr. Wm. H. Forbes, Boston. Seven Providence pump brake yacht windlasses for cutters building by Geo. Lawley & Son, South Boston, for Dr. Sayer, Hasbrouck, Budlong, et al. Providence; J. A. Beebe, cutter Verona Providence; C. D. Owen, Providence. R. I.; August Belmont, N. Y.; Mr. Foster, N. Y.; C. Richardson, cutter Nepenthe, New Orleans; La.; C. E. Ellis, cutter Nanon, Philadelphia, Pa. A galvanized yacht windlass, E. George & Co., N. Y. Yacht Montauk, a Providence pump brake yacht windlass, with Grater's locking gear and pumps, one yacht pump brake windlass, with Grater's locking gear and clamps, Jr. & Snelling, N. Y.

Steam Capstans.—Two Providence steam capstans for United States snag boat Wichita, on Missouri river. One Providence steam capstan for steamer Wm. B. Morley, Buffalo, N. Y. Three Providence steam capstans for steamars No's 97, 98, and 99, building by Detroit Dry Dock Co. One Providence steam capstan, Schwabacher, Bros' N. Y.

Steam Windlasses.—Five Providence steam pump brake windlasses for barges building by Robt. Palmer & Sons, Noanck, Ct. One Providence steam capstan windlass for steamer No. 96, building by Detroit Dry Dock Co., Mich. One Providence steam capstan windlass for schooner No. 60, building by Frank W. Wheeler & Co., West Bay City, Mich. One Providence steam capstan windlass for steamer building by Union Dry Dock Co., Buffalo, N. Y. Three Providence steam capstan windlasses for steamers No's 97, 98 and 99, building by Detroit Dry Dock Co.

Hand Windlasses.—One Providence pump brake windlass, with messenger chain attachment, for schooner Cornelius Hargraves, building at Camden, Me., by H. M. Bean. Both chains are 2½ inches. One Providence pump brake windlass for schooner building by James Davidson, New London, Ct. One Providence pump brake windlass for schooner building by D. Clark, Kennebunkport, Me. Two Providence pump brake windlasses for Providence Marine Railway & Dry Dock Co. One Providence capstan windlass for schooner No. 61, building by Frank W. Wheeler & West Bay City, Mich. One Providence crank windlass, E. George & Co., New York. Two Providence pump brake windlasses for Jonathan May & Sons, Philadelphia Pa. One Providence pump brake windlass for Thomes tow boat Co., New London, Ct. One Providence pump brake windlass for steamer Fearless, Twerton, R. I. One Providence crystal windlass. Joys, Norris & Co., Milwaukee, Wis.

[CONTINUED FROM PAGE 2.]

above statements are all made on chief examination. So the lookout says, that he heard an order given to starboard half a point, and under that order the vessel was swinging when the boats came together. He says this was within a couple of minutes before the collision.

It seems to me that the mate clears up the time of making and clearing the schooner. He says, on chief examination; "I was lying there in the bed and I heard the captain say 'starboard' then, 'hard a-starboard.' Before that I heard two whistles. I supposed we were coming near something. I supposed it was a schooner. I heard the horn; it was not three minutes before that I heard the schooner's horn, and just before I opened the door I heard one from another vessel. I was not asleep." On cross-examination, he says he heard the order, "starboard," and then "hard a-starboard," as he lay in his room. "I got out of my bunk the minute I heard hard a-starboard, and went right to the door as soon as I got my shoes on."

I now call the attention of the court, as I did in argument, to my re-cross examination of the wheelsman, beginning at page 67 of the original record, (page 36 of the abstract). The abstract does not, and no abstract could, do full justice to thetestimony. This witness, to whom the captain refers for the course and the heading of his vessel, absolutely refuses to venture any statement as to the course of the Pridgeon, or as to any orders received by him at the wheel of the Pridgeon, during the fifteen minutes preceeding the making of our light, for fear, he says, that he might tell a lie.

Notwithstanding the somewhat vague testimony of Captain Sherwood as to his vessel being on her course about S. by W. when our light was made, and as to her heading S. half W. when she struck us nearly at a right angle, I gather from such testimony as I have set out above from the chief examination of these witnesses, called by respondent, what seems to me a clear and satisfactory solution of the mystery of this collision. They were tangled up with this schooner and had starboarded to go under the stern of the schooner, whose horn they heard on their port bow, and which was standing across their bow into the land. They undoubtedly came pretty close to that schooner, and had gone ahead stronger perhaps to clear her, and the whistles, which the Pridgeon claims to have blown to us, were heard by the mate, within three minutes after he had heard the horn of this schooner. They cannot refuse full credit to this statement of the mate, and it accords with the general character of the statements and testimony of the other witnesses.

If they were mixed up with this other schooner, this may afford an explanation of a failure on their part to blow their fog signal and to attend to our fog signal for a few minutes before they made our light; and would not their starboarding, so shortly before making our light, put them on a course to the eastward of south, directly into the wind, as Captain Sherwood says they were going when they made our light on their starboard bow?

There is little room to doubt that the vessels made each other as described, we hearing their whistle on our port bow, they seeing our light on their starboard bow, simply because they were off on that tangent to port, caused by starboarding for the schooner. The vessels must then have been on converging courses, involving great risk of collision, and caused entirely by the Pridgeon's being for the time off the regular and usual course up the lake at that place. It was then the duty of the Pridgeon, under article 16, of the new, and 19, of the old rules, to keep out of our way, because the coures were converging, and she had the Chamberlain on her starboard side. Her master knew that the courses were converging, and the reason of it. If he did know, he certainly is chargable with knowledge; and if he did not know, then he was to blame for allowing his vessel to go ahead a second without giving the order to stop and back. Judge Brown, in the case of the Alberta, 23 Fed. Rep. 810, says; "In attempting to gather the actual facts of a collision from the contradictory testimony of witnesses, it should be borne in mind, (1) That the testimony of the crew of each vessel, in regard to her course, and the various orders given to and executed by the wheelsman and engineer, should be credited in preference to the testimony of an equal number of witnesses on another vessel, as they appear to them. (2) That the probability that a vessel, bound from one headland to another, will take the usual and direct course, between them is so strong that deviation from such a course without adequate cause ought to be established by the clearest preponderance of testimony."

We have in this case a certainty that one of these ships must have been off the usual and direct course, because they were on converging courses, making each other on opposite bows. I submit that there is not a word of testimony, and not a single circumstance to fairly indicate that the Chamberlain was off her course; but, on the other hand, the case shows very cogent circumstances, both from the testimony of men on board of the Pridgeon as to her swinging to port, or to the orders given to starboard, and the testimony of the captain, that she was heading directly into the wind when she made our light, coupled with the testimony that the wind was about S. S. E. and was blowing on the port side of the Pridgeon when she was on her course. These things I say, show very cogent reasons for believing that the Pridgeon was off her course. Let me remark here, that we do not claim that she was to blame for being so off her course; she had the best of reasons for being so. Our quarrel is that, being off her course, her master knew, or should have known it, and he should have acted on that knowledge when he made our light. If he was in doubt as to any of these matters he should have stopped and reversed at once. Notwithstanding any previous fault or misfortune in not knowing our presence sooner, for any reason, there was still ample time and opportunity to have avoided the collision after the Pridgeon made our light, had her master used the information he possessed, or should have possessed, and had he acted with fair prudence and ordinarily seamanlike skill.

I ask the court to carefully note here that while, in this view of the case, we were pursuing our course steadily, N. by E. with no disturbing influence, and no notice or intimation of the presence of the schooner which was bothering the Pridgeon, we heard a whistle of the Pridgeon, apparently seven or eight lengths away, and then a couple of points at least on our port bow. From the fact that we had not been hearing her whistle, we certainly assumed that she was not keeping the same course as the Chamberlain, but that it was a steamer coming up the lake, and our captain believed that she was, as such a steamer navigating that place ought then to have been, on a substantially opposite parallel course to ours. He further assumed, from the fact that our fog whistle had been blowing regularly, that this vessel coming on an opposite course had heard us, knew of our presence, had concluded that we were going down on the regular course and was signaling us that we should take the right and that she would do the same. For this notification one blast of her whistle was the appropriat e signal. Our master, recognizing the propriety of so passing and acquiescing in it, answered the signal with one blast, so notifying the approaching steamer of his acquiescence in their proposal to pass port to port, and also sounded his fog signal of three blasts.

And, if courts, in finding the facts in collision cases, should bear in mind so strong a probability as Judge Brown describes, that a steamer under such circumstances will pursue the usual and direct course, may not, or indeed, should not a master in charge of a vessel, under the same circumstances, act upon the same probability, when he knows of no cause or reason to the contrary.

Those on the Pridgeon, however, if they had stopped to think, would have known that they had starboarded and brought their vessel on a course to the eastward of south; that their vessel was not on the regular course up the lake; that her course was converging with the regular course of a steamer coming down the lake; and they should have taken into account these facts when they saw our light on their starboard bow; they should have known and recognized at once that, while our light was seen on their starboard bow, yet it appeared there by reason of the convergence of the courses, and that they were in fact on our port bow by reason of the convergence of the courses. If the master of the Pridgeon did not already know his true course when he made our light, he certainly should have looked at his compass. The master of a steamer is bound to know some things. Under such circumstances, it was the duty of the Pridgeon to port at once, if she did not stop and back; the natural instinct of a man in charge of a vessel would be to port in such a case; all the training and education of a seaman would influence him, under such circumstances, to port; and I urge that, whatever the speed of the Pridgeon, it was a grievous fault on the part of that vessel to continue to starboard, as her second mate and lookout say she did, and as her mate says the order was given, and to swing to port into our course, as the second mate and lookout of the Pridgeon, as well as the witnesses forward on the Chamberlain say she did, maintaining her speed the while, and signaling, as they claim to have done, to the Chamberlain to starboard and keep out of her way. If the master of the Pridgeon was not seaman enough to appreciate all this, which would so naturally come to the mind of a thorough seaman instinctively, then, as hereinafter argued, he should have at once stopped and reversed. He, however, kept up his speed; he did unquestionably star board; he signaled for us to get out of his way, and says he waited for an answer, and then signaled again, all that time coming in onto the course of our vessel, which he ought to have correctly judged. All the time our light was approaching in a way that must have indicated that the vessels were closing in to the point of convergence, if he observed it at all after they first made it; but not until he saw our red light right under the Pridgeon's bows did he seem to appreciate that there was anything calling for even a little particular attention to the navigating of his boat.

I have so far considered the general testimony, seeking in some sort to reconcile the testimony of the crew of the Pridgeon with that of the men from the Chamberlain, the Brown, the Palmer, the Nahant and the schooner Shepard, in a general view of the case.

But I claim that the lookout of the Pridgeon was insufficient. The master on the hurricane deck, with the second mate by his side blowing the fog whistle, did not constitute a lookout. See The Alberta, 23 Fed. Rep. 814.

This holding has been repeated a good many times in the courts.

That the man who was called the lookout, the watchman of the boat, who was stationed forward at the stem, was an incompetent person for that purpose, appears from his own testimony. He had sailed put a few months on any vessel and most of that time as deck hand. For only a few weeks had he acted as lookout, and during that time he had never before stood a lookout in a fog. See the Colorado, 91 U. S. Rep. 672. Same case in Brown's Admiralty, 409.

The speed of the Pridgeon was not a moderate speed, such as the night required, either before or after making our light. The engineer says, in the first place, that he estimates the number of revolutions, and the effect on the speed of the boat of checking to any given number of revolutions; and that his estimate of speed is purely an estimate, in other words, it is a guess. (p. 13.) As this is the only witness who attempts to justify his estimate of the speed at all, I invite the attention of the court to his original testimony at the foot of page 15, pages 16, 17, 29 and 30. He is the only man who attempts to give a basis for his statement as to the Pridgeon's speed. His basis or rule is this: That in proportion as you reduce the number of revolutions you reduce the speed of the boat; that is, reduce the revolutions one half and you reduce the boats's speed one half. If that is so, since he reduced the revolutions from 67 or 68 to 40, the engine was then operating at ten seventeenths of her full number of revolutions. This man states, on page 9, and he ought to know, that the full speed of the Pridgeon at sixty-eight revolutions was nine miles an hour. Ten seventeenths of nine miles is about five miles and a third. So that by his rule the Pridgeon was going five and a third miles an hour. Every witness from the Pridgeon, including the man Kinney, who was asleep for two hours preceding the collision, comes on to the stand and swears that the Pridgeon was running at four miles an hour. They come forward with this statement, as the singers repeat the words of an oratorio. It is a suspicious fact of itself that they had but one rate of speed. Tested by cross-examina-

[CONTINUED ON PAGE 7.]

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tion, the engineer says, practically, he does not know and cannot tell much about it; (pp. 13, 14, 19, 23;) that he came there for the simple purpose of swearing that she was running four miles an hour (p. 23;) and it is necessary for his counsel to say that the man, on his own examination, does not know what he is talking about. (p. 19.) Yet, let us see what the other witnesses really know about it, who swear that her speed was four miles an hour. Captain Sherwood (p. 80) says: "I cannot tell "how much she was checked. I only know "she was checked." The wheelsman (p. 33) says: "I cannot tell whether she was going at "three miles an hour or six miles an hour" And on page 63 of this man's original deposition, in his re-examination by Mr. Kramer, he makes a statement, inadvertently omitted from the abstract, which confirms this. He there says that he could not tell at what rate she was going. The lookout (p. 43) says: "She was checked down, I don't know whether "to four miles an hour or not. She was "checked down, that is all I know." Kinney (p. 48) was asleep for two hours prior to the collision, but the Pridgeon was running four miles an hour all that time. He says, "I "don't know this any more than I heard some "one say so." The second mate (pp. 59-60) says: "I can not tell know syou how I he was "going half-speed, aside from the fact that the "checking signal was given. I base my state-"ment upon the exact speed of the boat on "what wes told me after the collision." Hodge, the mate, says he could tell that the boat was checked, but he was not on deck and saw nothing to indicate how much she was checked, although he imagines he could tell

Our witnesses, who saw the Pridgeon come into their vessel, say she appeared to be running very fast and that she struck a very hard blow. Good sense would tell us, that, in order to cut into so sound, strong a vessel as the Chamberlain (described in the testimony of Captain Stone, p. 94,) to a depth of ten feet, and that in the strongest part of that vessel, she must have been coming at great speed, that is, great speed considering the fog that was then prevailing, a speed of certainly from six to eight miles an hour.

I ask the court to consider the testimony of the experts in this case at the close of our abstract. They are not boys; they are all men of many years' experience and of the very highest standing in their profession; men who have had to deal with similar questions—particularly Mr. Presley and Captain Drake, in their drydock experiences. These men say that if the combined speed had contributed to the force of the blow, the injury must have extended aft on the Chamberlain; that this would be the inevitable consequence, as we can readily see. We can also see, that, as they testify, the momentum of the Chamberlain as she was swinging away from the Pridgeon would not add to the depth to which the Pridgeon would penetrate on a right angle into the Chamberlain Considering the matter closely, it seems to me that their testimony, requiring a high rate of speed on the part of the Pridgeon to inflict that injury, should be accepted.

That the angle was nearly a right angle, I refer to the testimony in our abstract, (pp. 3) 6, 22, 27, 37, 91, 92, 94) respondent's abstract, (pp. 35, 38, 42, 54, 70, 83.) There is no dissentient voice on that subject.

I also call attention to the testimony of the Pridgeon's captain, (Respdt's abstract, p. 73,) showing that they were in a fog that morning preceding the collision, and that they ran at full speed through it. This may be entitled to some weight on the question of her speed at the time in question.

I have thus far considered the case in the usual manner, upon all the testimony and circumstances, and I submit that the testimony in this case, taken with all the circumstances, the fair inferences that can and should be drawn from the testimony, establish firmly the innocence of the Chamberlain and fault on the part of the Pridgeon in this collision.

No witness in the case testifies that the sail did, or could, or might have intercepted the sound of our whistle. The Pridgeon's second mate says the sail was between him and our whistle when he did hear it—that he heard the whistle distinctly and don't think the sail made any difference. (p. 55.) This agrees with the

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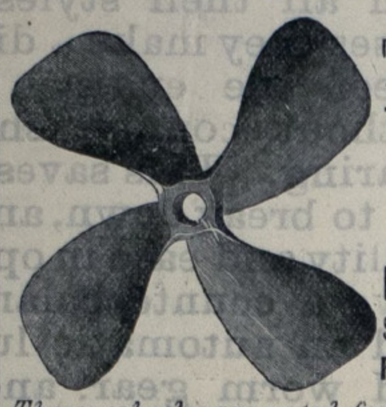
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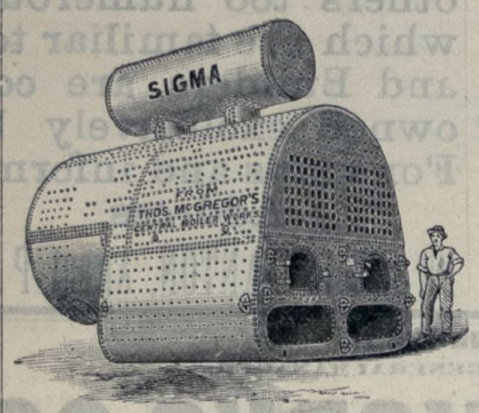

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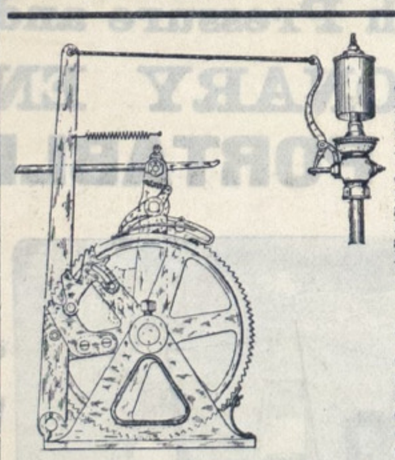
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GEO. H. STARBUCK,
W. D. ROBINSON,
} Committee.

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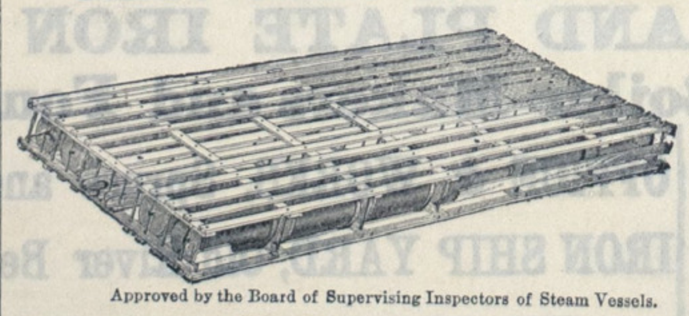

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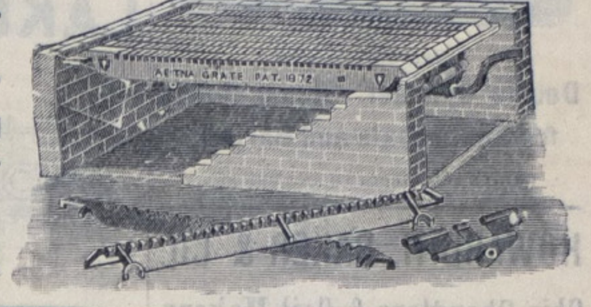

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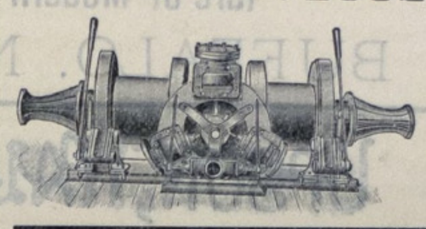

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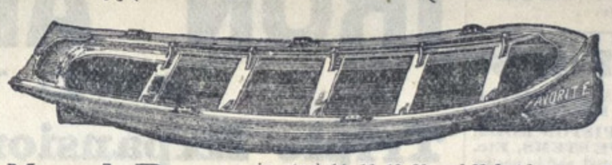

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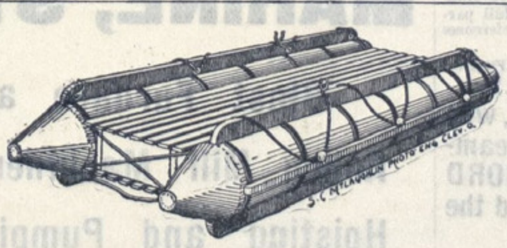

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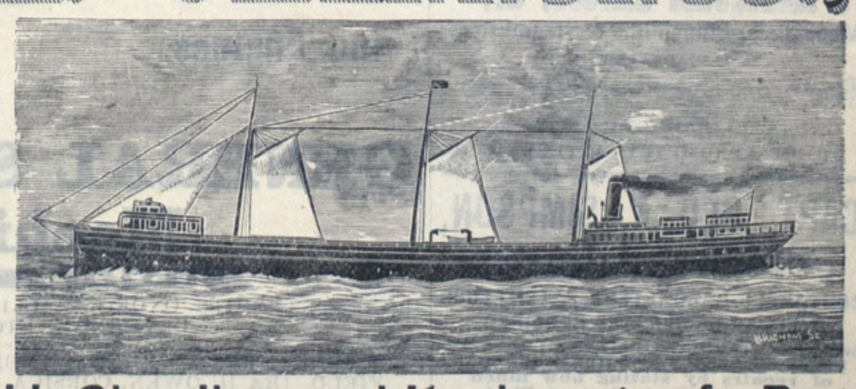

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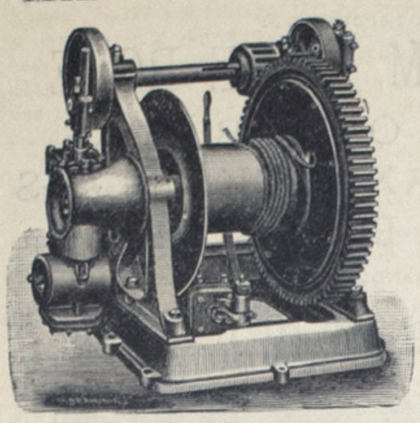

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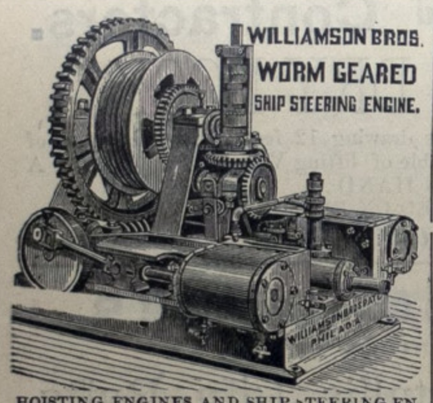

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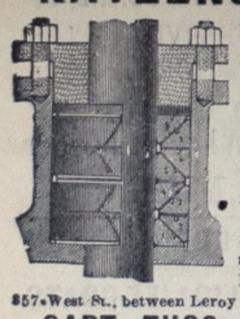

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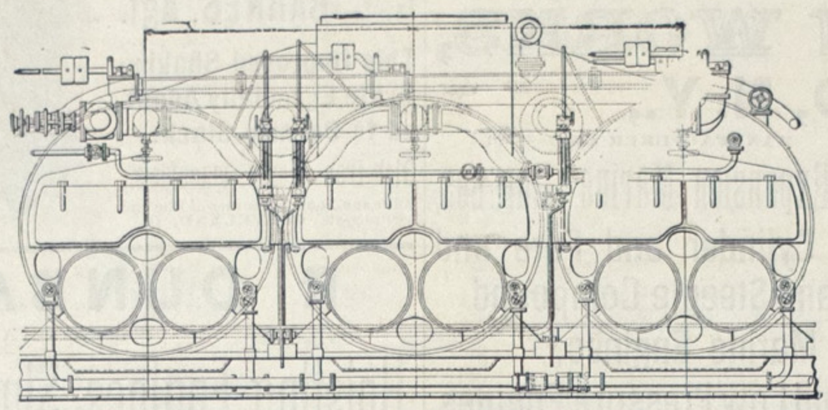

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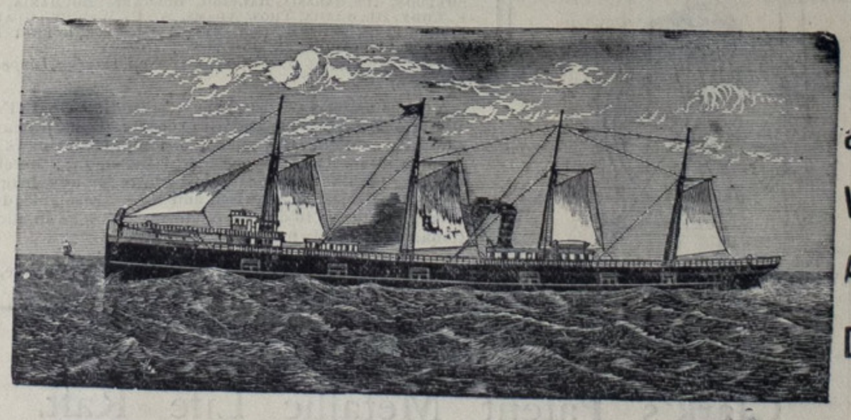

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